UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,287	10/18/2001	Bernhard Dohrmann	59575-014	6542

36491 7590 12/14/2007

Kunzler & McKenzie
8 EAST BROADWAY
SUITE 600
SALT LAKE CITY, UT 84111

EXAMINER	
GISHNOCK, NIKOLAI A	

ART UNIT	PAPER NUMBER
3714	

MAIL DATE	DELIVERY MODE
12/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/981,287	DOHRMANN, BERNHARD	
	Examiner	Art Unit	
	Nikolai A. Gishnock	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7,11,12 and 42-78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7,11,12 and 42-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 July 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In response to Applicant's remarks submitted 8/13/2007, claims 5, 6, 8-10, & 13-41 are cancelled. Claims 1-4, 7, 11, 12, & 42-78 are pending.

Drawings

1. Replacement drawings were received on 7/5/2007. These drawings are acceptable.

Specification

2. The substitute specification filed 7/5/2007 is acceptable and has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-4, 42-65, & 67-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konopka et al. (US 5,850,250), hereinafter known as Konopka, in view of Freiberger et al. (US 6,034,652), hereinafter known as Freiberger.

6. Konopka teaches a computer implemented delivery system, method, and for instructional information (workstation includes a personal computer to schedule classes, 8:40-42) comprising: at least one source that provides data, including an image capture device (front video cabinet with a document camera, 6:61-67), the data comprising instructional information (images of instructional materials are received by the document camera, 6:63-67) and background information (three video monitors for displaying video images of students in remote classrooms, 6:46-50); at least one user interface that receives input from a user (control panel to control all devices located in the room, 8:45-48), the input related to execution of the data (the teacher is able to switch between a rear camera and the document camera to control the display , 7:50-53); a plurality of output devices in a classroom that receives audio and visual components of the data, wherein the plurality of output devices includes at least three visual displays that show at least three visual images (the front audio/video cabinet includes three Video Monitors, each for displaying a video image; 6:46-50; see also Figure 3, Items 201-204) and wherein display of the instructional information is controlled by an operator (teacher's workstation includes a control panel, for controlling audio/video functions, 8:42-50), and at least one processor that generates or routes audio and visual components from the instructional information and background information from provided data to at least one output device (CPU module for controlling audio/video functions, 8:46-48), and a computer-readable medium accessible by the processor and including a set of predetermined rules (personal computer and CODEC machine which converts the digital information from the network into video and audio signals which are then broadcast into the classrooms by monitors for displaying the signals,

3:61-4:3 & 8:38-56, also 9:33-10:4) comprising instructions for displaying instructional information on at least one visual display chosen by the operator for a duration selected by the operator when an instructor is instructing a student (teacher's workstation with a control panel, linked to the network and audio/video components in the classroom for presentations, 8:38-56; the teacher is able to switch between devices to control the display, 7:50-53), and communication links that transmit data and information between the at least one source, the user interface, the processor and the output devices (personal computer is linked to the network and audio video components, 8:42-45) [Claims 1, 59, & 67].

7. What Konopka fails to teach is where the display of the background information is controlled by an auto-switching algorithm, the background images displayed and replaced randomly by the auto-switching algorithm that controls selection, sequence, and duration of the display of the background images after expiration of a timeout period [Claims 1, 42, 59, & 67]. However, Freiberger teaches where display of background information data (content data, making use of the unused capacity of a display device, and for presenting to a person during inactive periods, 2:3-34; content data includes clips, images, moving or still pictures, text, numerical information, or audio, 6:56-64), distinct from the instructional information (user's primary interaction with the computer; the information is presented in areas of a display screen that are not used by displayed information associated with the primary interaction with the apparatus. The information is embodied as one or more sets of content data, 2:16-21) is controlled by an auto-switching algorithm (A set or sets of instructions for enabling a display device to selectively display an image or images generated from a set of content data are also made available for use by the content display systems. Typically, the instructions enable images generated from content data to be displayed automatically, without user intervention, in a predetermined manner, thereby enhancing the capability of the invention to occupy the user's

peripheral attention, 2:35-3:10); and generating and routing the background information from provided data to output devices (The formulation of a version of a set of content data could depend upon the operating system being used by the computer on which the content display system is implemented or other characteristics of the computer, such as the speed with which the display device can be operated, 16:23-50); and personal computer including instructions for displaying background images of the background information on one or more visual displays not displaying instructional information (a computer readable medium can be encoded with one or more computer programs for enabling a content display system to selectively display on a display device, in an unobtrusive manner that does not distract a person from a primary interaction with an apparatus associated with the display device, an image generated from a set of content data, 4:60-5:10) randomly by the auto-switching algorithm that controls selection, sequence, and duration of the display of the background images (The instructions of the computer program can include: i) acquisition instructions for enabling acquisition of a set of content data from a specified information source, ii) user interface installation instructions for enabling provision of a user interface that allows a person to request the set of content data from the specified information source, iii) content data scheduling instructions for providing temporal constraints on the display of the image or images generated from the set of content data, and iv) display instructions for enabling display of the image or images generated from the set of content data, 4:31-41; it is understood that randomly displaying content is merely a scheduling instruction that can be provided to the attention manager), after expiration of a timeout period (The content data scheduling instructions can specify, for example, the duration of time that the image or images generated from a set of content data can be displayed, an order in which the images generated from a plurality of sets of content data are displayed, a time or times at which the image or images generated from a set of content data can or cannot

be displayed, and/or constraint on the number of times that the image or images generated from a set of content data can be displayed, 4:47-55). The instructions for the attention manager of Freiberger would be used in the instructional display system of Konopka, in order to occupy the user's peripheral attention and to make use of the unused capacity of the display devices. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to display to at least one output device background information from provided content data, controlled by an auto-switching algorithm; the algorithm comprising instructions for displaying background images on displays not displaying instructional information, replaced randomly by the auto-switching algorithm by controlling selection, sequence, and duration of the display of the background images after expiration of a timeout period, in order to present content to provide content to the user during periods when a user is not engaged in intensive interaction {i.e. learning interactions} with the apparatus, in areas of the display not used by displayed information associated with a user's primary interaction {i.e. instruction} with the apparatus, in an unobtrusive manner that does not distract the user from primary interaction with the apparatus [Claims 1, 42, 59, & 67].

8. Konopka teaches wherein said at least one source comprises at least one of VCR (4:24-27), DVD, cameras (3:48-52), audio tuners (microphone mixers, 9:37-41), Internet (data applications transmitted over T1 lines, 11:22-23) and PC-based presentations (8:42-45) [Claim 2].

9. Konopka teaches wherein said at least one predetermined rule determines order and sequence in which data from each source is to be applied to the output devices (in a normal operating mode, one of the video monitors will display the teacher, while the other monitors will display classroom images, 4:9-14) [Claim 3].

10. Konopka teaches wherein said input from a user determines which source provides data (video image received by the document camera may be selectively displayed on the first video monitor, 7:43-46) [Claim 4].

11. What Konopka fails to teach is wherein the at least one predetermined rule further includes displaying random switching time between the background images being displayed on each of the at least three visual displays [Claim 43], displaying random display duration of the background images being displayed on each of the at least three visual displays [Claim 44], displaying random special effect transitions of the background images being displayed on each of the at least three visual displays [Claims 45 & 71], and wherein the auto- switching algorithm replaces displayed background images according to a random duration with random background images [Claim 74]. However, Freiberger teaches instructions for switching time between background images (determining an idle period or idle condition, via an idle timer or apparatus to ascertain a user's attention focus at predefined time intervals, at 8:37-9:43, then generating a display of a set of content data if an idle period is detected, at 9:44-10:42), and instructions for controlling display duration and special effects of the background images (package file can also include information governing the presentation of the set of content data, such as screen position, special animation effects, and display duration, 21:50-54). Freiberger further teaches where the content display system can include instructions for evaluating a Gaussian probability function each time a set of content data in the schedule is presented for display, either displaying the content or not, based on a consideration of a variety of factors (26:52-27:15). This probability display function is understood to be a *random* probability of displaying content. This probability function taught by Freiberger would be evaluated by the content scheduler to control the idle period, display duration, and special animation effects of the content display, as used in the classroom instructional display system of Konopka.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the probability function of Freiberger to implement random switching times, display durations, and special effects of randomly-selected background images taught by Freiberger, in the instructional display system taught by Konopka, in order to optimize the use of the unused capacity of the display device and the viewer's attention [Claims 43-45, 71, & 74].

12. Konopka teaches wherein the at least one predetermined rule further includes displaying a student image (three monitors display video images of three remote classrooms, 4:9-14; these classrooms implicitly contain students being instructed) and a teacher image on the display system on one of the at least three visual displays (one of the video monitors will display a video image of the teacher, 4:9-14) [Claims 46 & 47].

13. Konopka teaches wherein the at least one predetermined rule further includes displaying a visual data piece repetitively on the display system on each of the at least three visual displays (teacher is able to switch between a rear camera focused on the teacher and the document camera to control the display of the first video monitor, 7:50-53) [Claim 48].

14. What Konopka further fails to teach is wherein the at least one predetermined rule further includes displaying background pictures during idle or transition periods on the display system on each of the at least three visual displays [Claim 49]. However, Freiberger teaches API instructions for the automatic display of background images on a computer display after detection of an idle period of predetermined duration (3:11-51). The instructions for determining the user's attention to the primary interaction taught by Freiberger would be used in the computer instruction system of Konopka in order to determine the appropriate timing to display background images on the display of Konopka, in order to optimize he user's attention to the instructional information and the background images. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to display background

pictures during idle or transition periods on the display system on each of the at least three visual displays, as taught by Freiberger, on the three visual display devices of the instructional computer display system of Konopka, in order to present content to provide content to the user during periods when a user is not engaged in intensive interaction {i.e. learning interactions} with the apparatus, in areas of the display not used by displayed information associated with a user's primary interaction {i.e. instruction} with the apparatus, in an unobtrusive manner that does not distract the user from primary interaction with the apparatus [Claim 49].

15. Konopka teaches wherein the at least one predetermined rule further includes displaying previous information provided by the operator to reinforce the previous information on each of the at least three visual displays (video image received by the document camera may be selectively displayed on the first video monitor, 7:43-46) [Claim 50].

16. Konopka teaches wherein the at least one predetermined rule further includes displaying new information provided by the operator when the operator overrides the auto-switching algorithm on the display system on each of the at least three visual displays, and providing a speaker override module that is configured to allow the operator to temporarily override display of the background images and to display selected material by the instructor (teacher is able to switch between a rear camera and the document camera to control the display of the first video monitor, 7:50-53) [Claims 51 & 65].

17. Konopka teaches wherein the rules further include displaying background images that are related to the instructional material being taught (video image received by the document camera may be selectively displayed on the first video monitor, 7:43-46) [Claims 52 & 60].

18. Konopka teaches wherein the rules further include displaying background images that are unrelated to the instructional material being taught (three monitors display video images of three remote classrooms, 4:9-14) [Claims 53 & 61].

19. Konopka teaches wherein the unrelated background images are selected from the group of pictures consisting of: animals, forests, rivers, clouds, mountains, art work, people, buildings, vehicles, tools, plants, minerals, geological items, scenic sights, maps, cartoon images, segments of movies, segments of videos, and web site images (three video monitors display a video image of students in a classroom, 6:46-50; the students are inherently people, and the video image inherently a segment of video) [Claims 54 & 62].

20. What Konopka fails to teach is wherein the unrelated background images are selected from the group of pictures consisting of: books, astronomy images, zoology items, biology items, historical items, futuristic information, economical information, financial information, statistical information, science fiction, fiction, scientific information, and theological information [Claims 55 & 63], and wherein the related background images are selected from the group of pictures consisting of: books, astronomy related images, mathematical related images, zoology related items, biology related items, historical related items, futuristic related information, economical related information, financial related information, statistical related information, science fiction related information, fiction related information, scientific related information, and theological related information [Claims 56 & 64]. However, Freiburg teaches where the background content data includes moving and still images of nature scenes, pictures of family members, music video segments, video from a camera monitoring ski slopes or traffic intersections, financial data, such as stock ticker information, or news summaries (7:23-38). The financial data of Freiburg is understood as financial information and financial related information. The background images and video as taught by Freiberger would be displayed by the processor selectively on the display devices of Konopka, for engaging the peripheral attention of the students. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have displayed financial information as the unrelated background

images, as taught by Freiberger, on the three displays in the computer-based instructional system of Konopka, in order to present content to provide content to the user during periods when a user is not engaged in intensive interaction {i.e. learning interactions} with the apparatus, in areas of the display not used by displayed information associated with a user's primary interaction {i.e. instruction} with the apparatus, in an unobtrusive manner that does not distract the user from primary interaction with the apparatus [Claims 55, 56, 63, & 64].

21. Konopka teaches wherein the three visual displays are viewable on a single display screen incorporating at least three separate visual images thereon (the first video monitor displays either a video image of the teacher or instructional material, and is larger than the other monitors, 6:33-44) [Claims 57 & 66].

22. Konopka teaches wherein the three visual displays are viewable on three distinct display screens (three video monitors, each for displaying a video image of students, 6:46-50) [Claim 58].

23. Konopka teaches wherein the user interface includes a screen and an input device (workstation includes a personal computer and control panel to control all devices located in the room, Abstract & 8:42-50) [Claim 68].

24. Konopka teaches wherein the source includes a microphone (student microphones, 9:33-34) [Claim 69].

25. Konopka teaches wherein the computer-readable medium includes instructions for enabling the operator to enter direction regarding image display through the user interface and instructions for carrying out such direction (remote controller, such as a joystick, for controlling the pan, tilt, and zoom system, for aiming and focusing a camera, 4:30-41) [Claim 70].

26. What Konopka further fails to teach is wherein the auto-switching algorithm replaces displayed background images with varying patterns selected with table driven timeouts [Claim

72], and wherein the table-driven timeouts preclude duplication of image pattern to a minimum frequency [Claim 73]. However, Freiberger teaches a content display system which stores a display schedule for background images in a database (the display schedule can also accommodate scheduling parameters that delete sets of content data from the display schedule during particular iterations, thereby, for example, controlling the frequency with which particular sets of content data are displayed. The display schedule can be stored in an appropriately structured database that is stored in a memory of the computer used to implement the content display system, 10:41-50). The database for storing the content data display schedule is understood to be a table, controlling the timeout period after which a particular content image is removed from display or no longer displayed. See also Freiburger, 28:40-29:45. The database of Freiberger for scheduling the display of content taught be Freiberger would be used to automatically switch the background images in the instructional display system of Konopka. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the auto-switching algorithm replace displayed background images with varying patterns selected with table-driven timeouts, which preclude duplication of image pattern to a minimum frequency, as taught in Freiberger, in the instructional display system of Konopka, in order to record audit or usage data, indicating the frequency and duration for which the user's attention was directed to each piece of content, for the benefit of the operator or a content distributor [Claims 72 & 73].

27. What Konopka further fails to teach is wherein the auto-switching algorithm selects input sources for the background information supplying the background images [Claim 75]. However, Freiberger teaches an auto-switching algorithm to selectively display images generated from one or more sets of content data (7:7-22; see also content providing systems, 16:17-22). The selection of input sources by the auto-switching algorithm of Freiberger could be programmed

into the computer-based instructional system of Konopka. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the auto-switching algorithm of Freiberger to select input sources for the background information, as a feature in the system of Konopka, in order to allow the automatic scheduling of original, updated, and interesting content on the display screen [Claim 75].

28. What Konopka further fails to teach is an operator override for the auto-switching algorithm for one or more visual displays [Claim 76]. However, Freiberger teaches where the attention manager can be terminated if the user makes an input to the computer using an input device (11:42-67). The operator override for the auto-switching algorithm of Freiberger could be programmed into the computer-based instructional system of Konopka. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the operator override of Freiberger as a feature in the system of Konopka, in order to allow the operator to select the primary interaction when he/she desires to refocus the student's attention manually [Claim 76].

29. What Konopka further fails to explicitly teach is wherein the auto-switching algorithm [Claim 77] or the operator [Claim 78] changes display of the instructional material from *one set* of the one or more of the at least three visual displays to *another set* of one or more of the at least three visual displays and wherein the auto-switching algorithm moves the background images of the background information to one or more visual displays not displaying instructional information [Claims 77 & 78]. However, Konopka teaches an instructional display device having three or more visual displays (6:46-50; also Figure 3, Items 201-204) and wherein display of the instructional information is controlled by an operator, who moves background images to displays not displaying instructional information (7:50-53). Further, Freiberger teaches the use of an auto-switching algorithm for the display of instructional material (2:35-3:10). Including another

set of one or more displays is construed as a mere duplication of parts, which fails to patentably distinguish over Konopka and Freiberger, because the auto-switching algorithm would treat another set of displays merely as more displays. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, for the auto-switching algorithm or the operator to change display of the instructional material from one set of the one or more of the at least three visual displays to another set of one or more of the at least three visual displays, wherein the auto-switching algorithm moves the background images of the background information to one or more visual displays not displaying instructional information, in the system of Konopka, in light of the teachings of Freiburger, in order to provide more displays for additional content on which a student's attention can be further focused [Claims 77 & 78].

30. Claims 7, 11, 12, & 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konopka, in view of Freiberger, as applied to claims 1 & 59 above, and further in view of Slezak (US 6,647,119), hereinafter known as Slezak.

31. Konopka and Freiberger teach all the features of claims 1 & 59 as demonstrated above. What Konopka and Freiberger fail to expressly teach is wherein each of the three display screens is divided into a plurality of viewing areas in a predetermined pattern [Claim 7], or two or more unequal viewing areas [Claim 11], or a plurality of viewing areas in a pattern different from the other screens [Claim 12], and wherein the single screen is configured to incorporate at least three separate visual displays thereon [Claim 66]. However, Slezak teaches a presentation device that displays some or all of the participants in isolated quadrants of the screen display (Column 6, Lines 48-55) [Claims 7 & 66]. Slezak teaches information being of a length that would be adjusted by scroll bars, in which it is inherently unequal to the length of the screen (Column 7, Lines 22-29) [Claim 11]. Slezak also teaches the use of MICROSOFT WINDOWS

NT or WINDOWS 95 visual interface, in which a plurality of adjustable windows may be customized on different user's screens (Column 8, Lines 54-57) [Claim 12]. The personal computer based system for controlling instructional displays of Konopka, using an operating system having a screensaver, wallpaper, or background API (Application Programming Interface), as taught by Freiberger (at 8:28-31 & 9:11-21), would have access to the user interface programming elements taught by Slezak. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have adapted the plurality of unequal viewing areas on different screens in a predetermined pattern, as taught by Slezak, into the instructional delivery device of Konopka and Freiberger, in order to display separate visual cues relevant to one another to a student on a monitor [Claims 7, 11, 12, & 66].

Response to Arguments

32. Applicant's arguments filed 7/5/2007, see pages 19-29, have been fully considered but they are not persuasive.

33. In response to applicant's argument that neither Konopka nor Slezak is non-analogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the Applicant cited *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993) as a legal precedent of the non-analogousness of the prior art references Konopka and Slezak, see pages 21-24. However, *Wang, Id.*, shows at page 1773:

> Dr. Jeffrey Frey, Wang's technical expert, testified that the Allen-Bradley technology, including the SIMM described in the patent and the X9, was not pertinent to the field of personal computers for which Wang's SIMMs were designed. Although Wang's patents do not mention the term "personal computer," Dr. Frey stated that "[t]he entire context of the patent [s] -- in the application of the memories, units of nine, dynamic memories -- indicates they're meant for use in personal computers." Dr. Frey further testified that the Allen-Bradley module was

developed for use in a controller of large industrial machinery and could not be used in a personal computer. He also stated that the Allen-Bradley patent teaches the use of Static Random-Access-Memories (SRAMs) or Read-Only-Memories (ROMs) and does not suggest the use of Dynamic Random-Access-Memories (DRAMs) as taught by Wang. As Dr. Frey stated, DRAMs are primarily used in personal computers (PCs), while SRAMs, which are larger and more expensive, are not used in PCs.
Wang's SIMMs were designed to provide compact computer memory with minimum size, low cost, easy repairability, and easy expandability. *See* '605 patent, col. 2, lines 61-64 ("By using the small D-RAMs and small capacitors, module 30 may have physical dimensions [on] the order of threequarter inch by three inches while providing large memory capacity."). In contrast, the Allen-Bradley patent relates to a memory circuit for a larger, more costly industrial controller. SRAMs were used by Allen-Bradley because of their intended industrial environment. According to Dr. Frey, size was not a consideration in the Allen-Bradley work. Thus, there is substantial evidence in the record to support a finding that the Allen-Bradley prior art is not reasonably pertinent and is not analogous.

Dr. Frey's testimony established that the differences in the field of endeavor between the SIMM of Wang's patent and the Allen-Bradley X9 are the use of a SIMM in personal computers vs. the X9 in heavy industrial equipment, where compactness of size, cost, repairability, and expandability are of extreme importance. The differences further established by Dr. Frey's testimony in regard to the pertinence of the problem is one of physical environment, in which a memory designed for hazardous, extreme environments was not pertinent to the design of a memory used in a personal computer. These differences resulted in a judgment of nonobviousness between the patent and the assertion of the prior art. In contrast, the Applicant's argument that the references of Konopka and Slezak are non-analogous is not even vaguely similar to the issue cited in *Wang. Id.* The instant issue is not one of physical size or interoperability. All three of Konopka, Slezak, and Applicant's disclosure indicate that the systems comprise *a personal computer* having instructions for displaying information (Konopka at 8:38-56; Slezak at 2:58-3:17 & 5:17-56; Applicant's Specification at Para. 0025, Pages 8-9). Thus, the references and the instant invention are analogous art, because they are all in the realm of personal computer programming, especially that used for display and user interface programming of MICROSOFT WINDOWS 95 and MICROSOFT WINDOWS NT. Applicant's further argument that Konopka and Slezak are nor reasonably pertinent to the Applicant's

problem is further unconvincing because the claims are directed to *computer instructions* for causing display of instructional and background images. A person having ordinary skill in the programming arts would naturally look to computer programming references for solutions to the problem of providing output data to computer displays, whether they are physically located in a home, a classroom, or other environment where personal computers are commonly found. Further, Applicant's Information Disclosure Statement, filed 6/5/2002, *cites* Konopka et al (US 5,850,250) as a reference to be expressly considered by the Office. Thus, Konopka and Slezak fulfill the test for analogous art, and thus, the Applicant's argument is unpersuasive.

34. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

35. In response to applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Additionally, the Supreme Court has particularly emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," where, "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results," *KSR International Co. v. Teleflex Inc. (KSR),* 550 U.S. ___, 82 USPQ2d at 1385 (2007). The focus when making a determination of obviousness should be on what a person of ordinary skill in the pertinent art would have known at the time of

the invention, and on what such a person would have been reasonably expected to have been able to do in view of that knowledge. This is so regardless of whether the source of that knowledge and ability was documentary prior art, general knowledge in the art, or common sense. See MPEP 2142 (Rev. 6, Sept. 2007). In this case, an explicit motivation for one of ordinary skill in the art to combine the teachings of the cited references at the time of the invention was expressed for all the rejections found above and in the previous Office Action. The argument on pages 24-25 is merely a restatement of Applicant's argument of non-analogous references, which is treated above.

36. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, see page 28, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

37. Applicant's additional arguments with respect to Metcalf (US 6,669,346), Jenkins et al. (US 6,585,518 B1), and Meyn et al. (US 5,859,623) have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Daniels et al. (US 5,310,349) discloses a computer system for displaying a virtual classroom environment on a display screen. Ho et al (US 6,398,556 B1) discloses a computer system for tracking a student's attention to the instructional material presented on a display.

Lowe et al. (US 6,298,218 B1) discloses a system for switching between advertising and entertainment video displays. Thean et al. (US 6,397,036 B1) discloses a streaming audio/video classroom system for displaying instructional information and entertainment information, such as web guides, music, or radio.

39. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is 571-272-1420. The examiner can normally be reached on M-F 8:30a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NAG

NAG
12/7/2007

Ronald Laneau

Ronald Laneau
Primary Examiner
Art Unit 3714

12/10/07